AUTOMATIC GENERATION OF APPLICATION PROGRAM INTERFACES, SOURCE CODE, INTERRUPTS, AND DATASHEETS FOR MICROCONTROLLER PROGRAMMING

5 ABSTRACT

A method to facilitate programming a microcontroller is disclosed. In one embodiment, after a user configures the circuit by selecting circuit parameters and pin-outs, various items are automatically generated to facilitate programming the microcontroller. The generated items may include: application programming interfaces (APIs) for programming the operation of one or more user modules; source code for realizing the user modules in hardware; interrupt vectors to call interrupt service routines for one or more modules; and a data sheet for the circuit.